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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/559,912

12/07/2005

Jacob Bruinink

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06/04/2009

PHILIPS INTELLECTUAL PROPERTY & STANDARDS

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BRIARCLIFF MANOR, NY 10510-8001

EXAMINER

NGUYEN, THANH NHAN P

ART UNIT

PAPER NUMBER

2871

MAIL DATE

DELIVERY MODE

06/04/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/559,912	Applicant(s) BRUININK ET AL.	
	Examiner THANH-NHAN P. NGUYEN	Art Unit 2871	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 February 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 7 is/are rejected.
- 7) ☒ Claim(s) 4-6 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 July 2008 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-3 are rejected under 35 U.S.C. 102(e) as being anticipated by Ikeno et al (US 6,862,058).

Ikeno et al disclose (Figs. 10 and 11; col. 10, lines 31-35) a transfective liquid crystal display device, comprising:

FIG.10

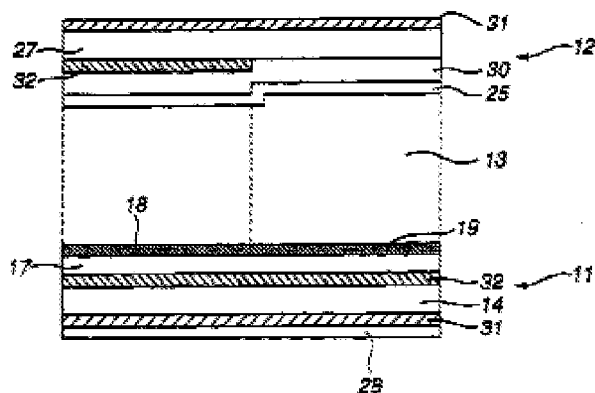
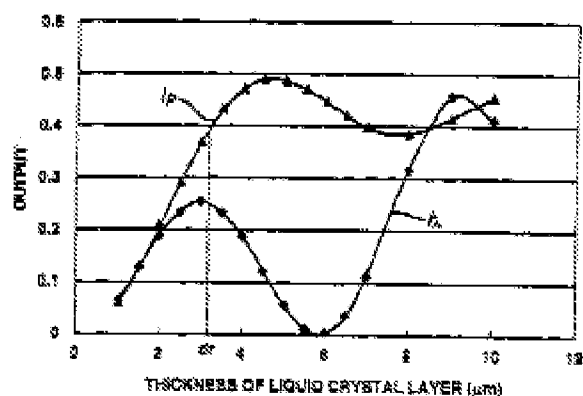


FIG.11



Claim 1:

- a front substrate (27) on a viewer side

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- a rear substrate (14)
- a liquid crystalline cell (13) sandwiched between the front substrate and the rear substrate, said liquid crystalline cell having transmissive portions (comprising a transmitting electrode 19) for selectively passing light generated by a backlight (28), and reflective portions (comprising a reflecting electrode 18) for selectively reflecting ambient light, said transmissive portions provided with a first cell gap and said reflective portions provided with a second cell, and an optical retarder (32) at the viewer side of said liquid crystalline cell, a thickness of said optical retarder being such as to compensate a difference between the first cell gap and the second cell gap

Claim 3:

- wherein the optical retarder includes a quarter-wave retarder (32) for the reflective portions

Claim 2:

- a front substrate (27) on a viewer side
- a rear substrate (14)
- a liquid crystalline cell (13) sandwiched between the front substrate and the rear substrate, said liquid crystalline cell having transmissive portions (comprising a transmitting electrode 19) for selectively passing light generated by a backlight (28), and reflective portions (comprising a reflecting electrode 18) for selectively reflecting ambient light, said transmissive portions provided with a first cell gap and said reflective portions provided with a second cell

- an optical retarder (32) at the viewer side of said liquid crystalline cell, a thickness of said optical retarder being such as to compensate a difference between the first cell gap and the second cell gap
- wherein the optical retarder is a patterned retarder extending substantially only over the reflective portions of the liquid crystalline cell

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ikeno et al in view of Kim (US 6,570,634).

Ikeno et al disclose all limitations as in claim 1.

Ikeno et al lack disclosure of the first cell gap is between 1.5 and 2.5 times the second cell gap.

Kim discloses (Fig. 6; col. 5, lines 48-53) the first cell gap (d2) is between 1.5 and 2.5 times the second cell gap (d1) for the benefit of having higher transmittance of 100% in off state (Fig. 7; col. 7, lines 44-61).

Therefore, at the time the invention was made, it would have been obvious to a person of ordinary skill in the art to have the first cell gap is between 1.5 and 2.5 times the second cell gap for the benefit of having higher transmittance of 100% in off state.

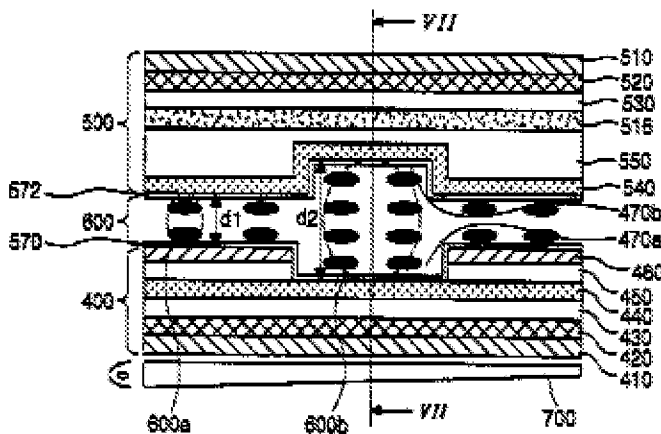


FIG. 6

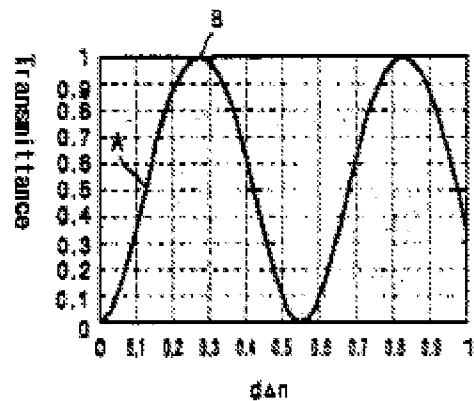


FIG. 7

Allowable Subject Matter

Claims 4-6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Reason for allowance: There is no prior art of record that teaches or suggests a transmissive liquid crystal display device comprising a relationship of various elements as claimed with the specific allowable subject matter cited in the following claim:

Claim 4:

- a color filter having a different thickness for the reflective portions and the transmissive portions of the cell, wherein the thickness of the optical retarder is such as to compensate both a difference between the first cell gap and the second cell gap, and said different thickness of said color filter

Claims 5 and 6 are allowed since they depend on the allowed claim 4.

Response to Arguments

Applicant's arguments filed 2/26/2009 have been fully considered but they are not persuasive. Therefore, the previous rejection has been maintained.

Applicant's argument: On the Remarks, page 5, lines 7-10, Applicant argued

(1) *"Ikeno's optical retarder is not at the viewer side nor is it patterned as required in the claims"* and (2) *"Moreover, optical retardation in Ikeno is a function of the orientation of the liquid crystals in a region. It is not a function of the thickness, as defined in the present claims."*

Examiner's answer:

(1) In Fig. 10, back light 28 formed behind the lower substrate 14; the viewer side is above the upper substrate 27. Therefore, *an optical retarder 32, which formed on the upper substrate 27, is at the viewer side.* Further, *the optical retarder 32 (formed on the upper substrate 27) is patterned to form only in reflective region (corresponding to reflective electrode 18).* When the optical retarder 32 (formed on the upper substrate 27) is not patterned, it formed over the reflection region and transmissive region (corresponding to transmissive electrode 19), as seen in Fig. 8.

(2) In Fig. 10, a transflective liquid crystal display device in which the gap in the reflective region is different from the gap in the transmissive region (as Applicant also agreed in Remarks, page 4, lines 16-17); as clearly seen from Fig. 10, the reason that *the gap in the reflective region is different from the gap in the transmissive region is because the optical retarder 32 formed only in the reflective region.*

Therefore, it is true that the optical retardation 32 in Ikeno is a function of the orientation of the liquid crystals in a region. However, it also functions as the thickness differences between the reflective region and transmissive region.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to (Nancy) Thanh-Nhan P. Nguyen whose telephone number is 571-272-1673. The examiner can normally be reached on Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Nelms can be reached on 571-272-1787. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

-- June 2, 2009
TN

/David Nelms/

Supervisory Patent Examiner, Art Unit 2871